

## AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

### Listing of Claims:

1           1. (Currently Amended) A method for validating a resource record in a  
2 local cache at a client computer system within a network, comprising:  
3           retrieving the resource record from the local cache at the client;  
4           issuing one or more queries for the resource record;  
5           waiting for a response to the query; and  
6           if the response to the query is not received in a pre-determined amount of  
7 time, invalidating the resource record at the client, wherein invalidating the  
8 resource record further comprises validating any child resource record of ~~involves~~  
9 ~~deleting~~ the resource record.

1           2 (Canceled).

1           3. (Original) The method of claim 1, further comprising:  
2           receiving a multicast message from a second client querying a second  
3 device;  
4           locating a second resource record associated with the second device;  
5           waiting for a multicast response to the multicast query; and  
6           if after a pre-determined number of queries the multicast response to the  
7 multicast query is not received in the pre-determined amount of time, invalidating  
8 the second resource record.

1           4. (Currently Amended) The method of claim 1, ~~wherein invalidating the~~  
2 ~~resource record further comprises invalidating a child record of the resource~~  
3 ~~record~~ wherein validating a child resource record of the resource record involves:  
4           issuing at least one query for the child resource record;  
5           waiting for a response to the query; and  
6           if the response to the query is not received in a pre-determined amount of  
7 time, invalidating the child resource record at the client.

1           5. (Original) The method of claim 1, wherein if the response to the query  
2 is not received in a pre-determined amount of time, the method further comprises:  
3           retrieving a parent record of the resource record at the client, wherein the  
4 parent record refers to the resource record;  
5           issuing a query for the parent record;  
6           waiting for a response to the query from the device; and  
7           if the response to the query is not received in a pre-determined amount of  
8 time, invalidating the parent record, and then repeating the above process by  
9 applying it recursively to any records that refer to the now-invalidated parent  
10 record.

1           6. (Original) The method of claim 1, wherein if the response to the query  
2 is not received in a pre-determined amount of time, the method further comprises:  
3           retrieving a parent record of the resource record at the client, wherein the  
4 parent record refers to the resource record;  
5           issuing a query for the parent record;  
6           receiving a response to the query from the device, wherein the response  
7 includes information for updating the resource record; and  
8           updating the resource record with the information received in the response.

1           7. (Original) The method of claim 6, wherein the method further  
2 comprises updating the parent record with the information received in the  
3 response.

1           8. (Original) The method of claim 1, wherein the method is invoked at a  
2 pre-specified time interval.

1           9. (Currently Amended) A computer-readable storage medium storing  
2 instructions that when executed by a computer cause the computer to perform a  
3 method for validating a resource record in a local cache at a client computer  
4 system within a network, the method comprising:  
5           retrieving the resource record from the local cache at the client;  
6           issuing one or more queries for the resource record;  
7           waiting for a response to the query; and  
8           if the response to the query is not received in a pre-determined amount of  
9 time, invalidating the resource record at the client, wherein invalidating the  
10 resource record further comprises validating any child resource record of ~~involves~~  
11 ~~deleting~~ the resource record.

1           10 (Canceled).

1           11. (Original) The computer-readable storage medium of claim 9, wherein  
2 the method further comprises:  
3           receiving a multicast message from a second client querying a second  
4 device;  
5           locating a second resource record associated with the second device;  
6           waiting for a multicast response to the multicast query; and

7 if after a pre-determined number of queries the multicast response to the  
8 multicast query is not received in the pre-determined amount of time, invalidating  
9 the second resource record.

1 12. (Currently Amended) The computer-readable storage medium of claim  
2 9, ~~wherein invalidating the resource record further comprises invalidating a child~~  
3 ~~record of the resource record~~ wherein validating a child resource record of the  
4 resource record involves:

5 issuing at least one query for the child resource record;  
6 waiting for a response to the query; and  
7 if the response to the query is not received in a pre-determined amount of  
8 time, invalidating the child resource record at the client.

1 13. (Original) The computer-readable storage medium of claim 9, wherein  
2 if the response to the query is not received in a pre-determined amount of time,  
3 the method further comprises:  
4 retrieving a parent record of the resource record at the client, wherein the  
5 parent record refers to the resource record;  
6 issuing a query for the parent record;  
7 waiting for a response to the query from the device; and  
8 if the response to the query is not received in a pre-determined amount of  
9 time, invalidating the parent record, and then repeating the above process by  
10 applying it recursively to any records that refer to the now-invalidated parent  
11 record.

1 14. (Original) The computer-readable storage medium of claim 9, wherein  
2 if the response to the query is not received in a pre-determined amount of time,  
3 the method further comprises:

4           retrieving a parent record of the resource record at the client, wherein the  
5   parent record refers to the resource record;  
6           issuing a query for the parent record;  
7           receiving a response to the query from the device, wherein the response  
8   includes information for updating the resource record; and  
9           updating the resource record with the information received in the response.

1           15. (Original) The computer-readable storage medium of claim 14,  
2   wherein the method further comprises updating the parent record with the  
3   information received in the response.

1           16. (Original) The computer-readable storage medium of claim 9, wherein  
2   the method is invoked at a pre-specified time interval.

1           17. (Currently Amended) An apparatus that validates a resource record in a  
2   local cache at a client computer system within a network, comprising:  
3           a retrieval mechanism at the client configured to retrieve the resource  
4   record from the local cache at the client; and  
5           an invalidation mechanism configured to,  
6                   issue one or more queries for the resource record,  
7                   wait for a response to the query, and  
8                   if the response to the query is not received in a pre-  
9           determined amount of time, to invalidate the resource record at the  
10   client, wherein invalidating the resource record further comprises  
11   validating any child resource record of ~~involves deleting the~~  
12   resource record.

1           18 (Canceled).

1           19. (Original) The apparatus of claim 17, wherein the invalidation  
2 mechanism is configured to:  
3           receive a multicast message from a second client querying a second  
4 device;  
5           locate a second resource record associated with the second device;  
6           wait for a multicast response to the multicast query; and  
7           if after a pre-determined number of queries the multicast response to the  
8 multicast query is not received in the pre-determined amount of time, to invalidate  
9 the second resource record.

1           20. (Currently Amended) The apparatus of claim 17, ~~wherein invalidating~~  
2 ~~the resource record further comprises invalidating a child record of the resource~~  
3 ~~record~~ wherein when validating a child resource record of the resource record, the  
4 invalidation mechanism is configured to:  
5           issue at least one query for the child resource record;  
6           wait for a response to the query; and  
7           if the response to the query is not received in a pre-determined amount of  
8 time, invalidate the child resource record at the client.

1           21. (Original) The apparatus of claim 17, wherein if the response to the  
2 query is not received in a pre-determined amount of time, the invalidation  
3 mechanism is additionally configured to:  
4           retrieve a parent record of the resource record at the client, wherein the  
5 parent record refers to the resource record;  
6           issue a query for the parent record;  
7           wait for a response to the query from the device; and

8           if the response to the query is not received in a pre-determined amount of  
9   time, to invalidate the parent record, and to then repeat the above process by  
10   applying it recursively to any records that refer to the now-invalidated parent  
11   record.

1           22. (Original) The apparatus of claim 17, further comprising an updating  
2   mechanism, wherein if the response to the query is not received in a pre-  
3   determined amount of time, the updating mechanism is configured to:  
4           retrieve a parent record of the resource record at the client, wherein the  
5   parent record refers to the resource record;  
6           issue a query for the parent record;  
7           receive a response to the query from the device, wherein the response  
8   includes information for updating the resource record; and to  
9           update the resource record with the information received in the response.

1           23. (Original) The apparatus of claim 22, wherein the updating  
2   mechanism is additionally configured to update the parent record with the  
3   information received in the response.

1           24. (Original) The apparatus of claim 17, wherein the apparatus is  
2   invoked at a pre-specified time interval.

1           25–34. (Canceled)